The Relationship between Corporate Political Strategy of Public Partnership and Corporate Investment

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Abstract

Companies are adopting a variety of strategies to reach new levels of development. Along with the course on self-sufficiency and risk management, many players consider a complex combination of strategic actions acceptable for themselves: they invest in political initiatives, expecting in the long term to receive government support in order to turn it into a "booster" for their own investment and innovation activity.

This article presents a detailed analysis of the impact of corporate political activity (CPA) on the formation of long-term technological and market advantages for business. This study is based on a sample of US-listed companies. The effects of the considered strategy for improving business performance appear to be ambiguous. To develop and clarify the results of previous studies, it is concluded that CPA brings tangible benefits to companies only up to a certain limit. The most significant benefits from the use of this tool, in addition to small companies, are derived by large players, which for one reason or another have been in a vulnerable position in terms of building capital. On the contrary, self-sufficient and stable business entities that have managed to accumulate a solid investment base should abandon CPA. Instead, they should focus on expanding their market presence and investing in research and development, which will provide more tangible returns than CPA.

Keywords: long-term strategies; technological potential; research and development; innovation; corporate political activity; corporate investment; uncertainty; quantile regression

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Introduction

Many companies, in an effort to increase sustainability, foster innovation and gain higher competitiveness, see partnership with governments as an effective tool in realizing these goals. By building up political capital, businesses discover certain advantages that would otherwise take a long time and be faced with great obstacles to achieve. Corporate political activity (CPA) has emerged as a prevalent strategy for firms in the United States and globally to exert influence over government policies, regulations, and overall performance (Ramesh, 2024; Slater et al., 2024). In the new context, it is often addressed by high-tech companies (Gomez et al., 2017; Guedhami et al., 2014). The practice of lobbying can be traced back to the early days of the American Revolution, and it was officially regulated in 1876 (Byrd, 1991). Since then, lobbying has experienced significant growth. According to the Center for Responsive Politics (CRP), in 2019, the United States had 11,890 lobbyists, and lobbying expenses escalated from $1.45 billion in 1998 to $3.5 billion. A considerable portion of lobbying funding can be attributed to businesses that extensively contribute to Political Action Committees (PACs).[1] In the 2019-2020 election cycle, Honeywell International, the National Beer Wholesalers Association, and the Sheet Metal, Air, Rail, and Transportation Union were the top contributors. It is important to note that CPA is not limited to the United States; many firms engage in political participation worldwide. Scholars have extensively documented the pervasive nature of corporate lobbying in regions such as the European Union (Massaro, 2019), South Korea (Lee et al., 2022), Japan (Romann, 2020), Jordan and Kuwait (Goldstraw-White, Martin, 2016), and Russia (Denisov, 2010). Therefore, it is evident that firms allocate significant resources to political activities and play prominent roles in the political landscape, both in the United States and globally.

Contemporary literature in economics and political science highlights the significant value attributed to CPA by businesses, with non-market strategies placing a strong emphasis on political engagements. However, existing research in this field often overlooks the empirical and theoretical aspects of businesses' political engagements. While scholars possess a good understanding of which firms engage in CPA and their motivations, the effectiveness of tactics and how CPA evolves over time and across different contexts remain uncertain (Getz, 1997). Despite the crucial role of CPA, empirical evidence regarding its impact on corporate investments is scarce, prompting scholars to call for further research to assist managers in making well-informed decisions about CPA.

Recent studies indicate that CPA plays a crucial role in firms' strategies for national competitiveness, and this rationale has been extended to the realm of corporate investment by various researchers (Xu, Yan, 2019; Alok, Ayyagari, 2020; Rudy, Cavich, 2020; Lin, 2019, 2020). Despite the highly regarded value of CPA for corporate investment, empirical findings in this area remain inconclusive and ambiguous (Lin, Si, 2010; Ramesh, 2024; Slater et al., 2024). Research indicates that firms with strong political connections are more likely to acquire resources, enhance learning, and improve overall performance (Hillman, 2005; Lin, 2019, 2020; Wu et al., 2013). However, other studies suggest either no impact or even a negative impact (Lin, 2019; Faccio, 2010; Fan et al., 2007). Changes in the political power structure can also exert adverse effects on corporate investments (An et al., 2016), particularly during periods of uncertainty such as elections or policy changes (Gulen, Ion, 2016). Notably, research indicates that CPA significantly influences the capital market, impacting various parameters such as market valuation (Faccio, 2010), cost of debt (Bliss, Gul, 2012), firm performance (Jackowicz et al., 2014; Lin et al., 2019), organizational governance (Fung et al., 2015), stock returns (Cooper et al., 2010), earnings persistence (Liu et al., 2018), crash risk (Piotroski et al., 2015), and mergers and acquisitions (Liou et al., 2021; Funk, Hirschman, 2017). Due to the knowledge gaps and diverse academic viewpoints regarding the importance of CPA, this study aims to fill the research gap by investigating the influence of CPA on corporate investment using new mathematical methods. Additionally, some studies suggest that the type of CPA matters, making it important to explore the topic comprehensively.

This study addresses the research gap concerning the correlation between CPA and corporate investment. The study contributes to the existing knowledge in three key ways. Firstly, it examines the positive impact of CPA on corporate investment within a politically stable environment, which has not been extensively explored in prior studies. Previous research suggests that CPA diminishes corporate investment during periods of political instability; however, we anticipate observing higher levels of corporate investment during more stable periods. Secondly, the study expands the current understanding of the association between CPA and various financial market outcomes such as profitability (Liu et al., 2018), stock returns (Goldman et al., 2009), firm performance (Jackowicz et al., 2014), and cost of debt (Bliss, Gul, 2012; Khaw et al., 2019) by incorporating the concept of corporate investment.

The literature on management strategy commonly recognizes two sources of endogeneity: unobservable heterogeneity and simultaneity. However, researchers often overlook the endogeneity resulting from past corporate investment, which in turn influences current values of CPA. Neglecting this endogeneity can have significant implications for the validity of any inferences drawn. Given the challenges associated with

[1] http://www.opensecrets.org, accessed 12.02.2024.

identifying exogenous instruments or natural experiments in different contexts, researchers often rely on panel data and fixed-effect estimates as an alternative approach. To ensure reliable and robust estimates, assuming that unobserved heterogeneity is fixed or time-invariant, this study employs a dynamic generalized method of moments (GMM) panel estimator to estimate the relationship between CPA and corporate investment.

The third contribution of this study lies in the use of quantile regression, which is a more appropriate technique than simple mean linear regression for analyzing the association between CPA and corporate investment. Mean linear regression focuses solely on the conditional mean, disregarding the entirety of the distribution of the dependent variable that is influenced by the independent variables. In contrast, quantile regression takes into account the distribution of the dependent variable and identifies variations in the relationship across different points in the distribution. This technique allows for coefficient estimations that consider the quantiles of the dependent variable, making it well-suited for exploring heterogeneous relationships within different percentile ranges of the dependent variable. Thus, we employ quantile regression to examine the relationship between CPA and corporate investment, aiming to uncover new insights in this domain (Galvao, 2011).

The structure of this study is organized into several sections. The first section discusses the theoretical framework, followed by a justification of the working hypotheses. The econometric technique used in the study is presented in the subsequent section, which includes a description of the empirical variables and a descriptive data analysis. The research findings are then presented and examined, followed by a final discussion and conclusion of the study in the last section.

Literature Review and Hypotheses Development

Corporate Political Activity

A meticulous examination of CPA reveals a multitude of significant challenges and limitations that impede our holistic understanding of its implications and outcomes (Ma, Xue, 2024; Sutton et al., 2021). Despite its escalating prevalence in contemporary business landscapes, the lack of a cohesive theory of political strategy and the varying explanations for firms' engagement in political activities pose formidable obstacles to fully apprehending the motivations and consequences of CPA (Lawton et al., 2013; Lux et al., 2011; Cooper et al., 2010; Hadani et al., 2017; Sutton et al., 2021). At the heart of the matter lies the potential for CPA to undermine democratic processes, effectively allowing firms endowed with substantial financial resources to exert disproportionate influence over government policies and decisions. This engenders profound concerns about the integrity and inclusivity of the political system, alongside the looming specter of regulatory capture, where powerful corporations wield their clout to shape policies in their favor, often at the expense of broader societal interests (Hacker, Pierson, 2011; Bertrand, Perrin, 2024; Ramesh, 2024; Slater et al., 2024).

For instance, in the pharmaceutical industry, companies have been known to engage in extensive lobbying efforts to influence drug pricing policies and regulations. One notable example is the case of Mylan Pharmaceuticals, which faced significant public backlash after it increased the price of its life-saving EpiPen medication by over 500% over the course of a decade. Mylan's aggressive lobbying tactics and political contributions came under scrutiny, highlighting the potential negative consequences of corporate political influence on public health policies.[2]

Moreover, the impact of CPA on firm performance remains a contentious and inconclusive terrain. While certain studies suggest positive outcomes, such as heightened access to resources and bolstered competitive advantage stemming from political engagement, others unveil no discernible benefits or even signal negative effects (Shi et al., 2020). This variability in findings underscores the intricate interplay of contextual factors, the inherent challenge of disentangling the causal relationship between CPA and firm performance, and the manifold complexities inherent in gauging the efficacy of political activities (Hadani et al., 2017; Ramesh, 2024; Slater et al., 2024). Furthermore, the ethical ramifications of CPA loom large on the horizon. The blurred delineation between corporate interests and public welfare triggers fundamental queries concerning the legitimacy and transparency of corporate influence in political decision-making processes. It is incumbent upon us to subject the potential conflicts of interest, the ever-present risk of regulatory capture, and the broader societal implications of corporations leveraging CPA to advance their vested agendas to rigorous scrutiny (Anastasiadis et al., 2018).

The quest to deepen our comprehension of CPA necessitates a rigorous and expansive inquiry that adopts a critical lens and delves into the intricacies and power dynamics at play. This entails not only exploring the ethical dimensions and potential social disparities inherent in corporate political engagement but also scrutinizing the enduring societal ramifications. Additionally, the development of robust methodologies and rigorous analytical frameworks to evaluate the effectiveness and broader impact of CPA is imperative. Only through such endeavors can we illuminate stakeholders and guide the formulation of policies that prioritize transparency, accountability, and the broader public interest in political decision-making processes.

[2] https://www.cbsnews.com/news/epipen-price-hikes-add-millions-to-pentagon-costs /, accessed 18.02.2024.

Corporate Political Activity and Corporate Investments

The concept of political patronage (Shleifer, Vishny, 1994), introduces the idea that firms can gain favorable business advantages from the government through strategic political engagements. This involves firms leveraging their connections with influential politicians, often by contributing financially to political campaigns, in exchange for government support (Sutton et al., 2021). The theory posits that firms with promising growth prospects, which are largely driven by corporate investments, are more inclined toward engaging in CPA. These prospects act as indicators of a firm's growth potential and help mitigate uncertainties about future expansion. As such, firms may tailor their CPA strategies to not only pursue growth objectives but also to create a competitive moat against potential rivals and uncertainties, thus actively seeking political alliances.

Nevertheless, the repercussions of such political engagements necessitate a critical assessment. This entails evaluating potential market competition distortions, the fairness in the allocation of resources, and the likelihood of rent-seeking behaviors that could undermine societal welfare. A deeper investigation into the mechanisms and impacts of political patronage is essential, considering the efficacy of CPA in meeting growth objectives, the durability of political connections, and their enduring effects on firm performance and societal implications. Moreover, an analysis of the ethical dimensions and associated risks of political patronage could provide critical insights for policymakers and stakeholders intent on ensuring fair and transparent interactions between businesses and governments.

Recent research endeavors, exemplified by (Hart, 2001; Wang et al., 2018), have utilized the ratio of R&D expenditures to sales as a means to measure a firm's technological intensity and its propensity to engage in CPA. They suggest a positive association between R&D intensity and CPA engagement, indicating that technologically advanced firms may seek to maximize returns on their investments through strategic political activities (Gomez et al., 2017; Guedhami et al., 2014). Consequently, these firms might intensify their CPA efforts to preserve their political influence and sustain profitability, provided the benefits outweigh the costs.

This discourse suggests that firms with significant R&D investments, indicative of a strong emphasis on innovation, are likely to engage more actively in CPA. This strategic engagement is aimed at conserving political capital and enhancing financial performance. An empirical validation of this hypothesis could shed light on the complex interplay between R&D intensity, CPA, and firm outcomes.

Recent studies exploring the dynamic relationship between corporate strategies, political engagement, and financial outcomes provide valuable insights. For instance, some researchers have demonstrated a nuanced view of CPA, finding that firms' political contributions are closely linked to their market performance and the regulatory environment (Cooper et al., 2010; Sutton et al., 2021). This suggests that while CPA can offer advantages in terms of policy influence and regulatory outcomes, the benefits are contingent upon the firm's ability to navigate the political landscape effectively. Furthermore, the study (Hill et al., 2013) highlights the strategic considerations firms must weigh when engaging in CPA, emphasizing the importance of aligning political activities with overall business objectives to ensure long-term sustainability and growth.

Based on the discussion above and the insights from previous research, we propose the following hypothesis:

H1: Corporate Political Activity (CPA) has a positive relationship with corporate investment.

Corporate Political Activity and Corporate Investment in Low-Investment Firms

Recent research (Ozer, Markóczy, 2010; Ashyrov, Lukason, 2022) offers invaluable insights into the strategic maneuvers of small and medium-sized enterprises (SMEs) as they adeptly utilize CPA to navigate the intricate landscape of accessing external capital and fortifying their investment initiatives. SMEs endowed with robust political networks showcase a heightened capacity to surmount financial barriers and successfully procure external capital, thus effectively positioning themselves for sustainable growth and expansion (Brown et al., 2023). Furthermore, insights from Tyler et al. (2023) highlight the proactive engagement of politically connected SMEs in shaping regulatory environments to their advantage. By actively participating in political processes, these firms not only adeptly navigate bureaucratic hurdles but also gain invaluable insights into forthcoming policies and regulations, enabling them to adapt their investment strategies in anticipation of evolving market conditions. There is evidence that SMEs with well-established political ties are better positioned to capitalize on opportunities for securing debt financing, enabling them to pursue strategic investment initiatives and fuel their growth trajectory.

Based on these discussions, the following hypothesis is proposed:

Hypothesis H2: CPA has a positive relationship with corporate investment when the firm has a low investment level.

Corporate Political Activity and Corporate Investment in High-Investment Firms

The strategic choice perspective (Child, 1972) elucidates the multifaceted challenges encountered by organizations when making strategic decisions that profoundly impact their goals, technological frameworks,

and operational domains. This perspective posits that organizations possess the autonomy to deliberate and select adaptive responses to both internal and external stimuli. Despite the constraints imposed by external environments, large organizations wield considerable influence in reshaping their surroundings by actively manipulating and redefining objective aspects of their operating environments. Empirical research underscores the substantial impact of such organizations on local economies, attributing their significance to their heightened productivity levels and adept utilization of modern technologies. Furthermore, these entities typically exhibit accelerated growth trajectories and enjoy prolonged business survival rates in comparison to their small and medium-sized counterparts, rendering them less reliant on governmental assistance and demonstrating diminished reliance on CPA.

Expanding on this perspective, recent studies by Beugelsdijk and Cornet (2021) underscore the profound influence that large organizations exert on local economies, highlighting their role in driving productivity and technological advancement. Similarly, Bhagat and Bolton (2008) emphasize the accelerated growth trajectories of large organizations and their reduced dependence on governmental assistance, indicating their ability to navigate operational challenges without extensive reliance on corporate political activity.

Moreover, Hillman and Keim (2001) emphasize the importance of large organizations in effectively balancing market and non-market strategies to maintain competitiveness and foster sustainable growth. They argue that integrating robust strategies in both domains is imperative for achieving long-term success amid dynamic market landscapes.

On the topic of resource allocation and strategic decision-making, Bonardi (2003) suggests that large organizations often face challenges in effectively allocating resources between market and non-market strategies due to overlapping resource requirements. This highlights the complexity involved in optimizing resource utilization to achieve desired strategic outcomes.

Furthermore, Barnett and Salomon (2006) discuss the intricate trade-offs faced by large organizations when simultaneously pursuing corporate political activity and corporate investment for innovation or product development. They argue that while both initiatives demand substantial organizational resources, firms must navigate trade-offs to maximize their strategic outcomes effectively. Furthermore, these organizations often demonstrate accelerated growth trajectories and enhanced longevity in the business realm compared to their smaller counterparts, thereby reducing their reliance on governmental assistance and exhibiting a decreased need for extensive CPA (Bhagat, Bolton, 2008). Developing robust strategies in both market-oriented and non-market-oriented domains is essential for maintaining competitive advantages and fostering sustainable growth in the long term. However, the integration of these strategies presents formidable challenges, including resource constraints and conflicting organizational objectives. For instance, the allocation of resources for both market and non-market strategies may overlap, posing dilemmas for organizations striving to optimize resource utilization and achieve their strategic goals effectively (Bonardi, 2003). The simultaneous pursuit of CPA and corporate investment for innovation or product development necessitates substantial organizational resources and often entails complex trade-offs between these strategic imperatives. This trade-off dilemma is rooted in principles of economic rationality, wherein organizations endeavor to allocate resources efficiently to bolster their market power and enhance their competitive advantage (Taylor, 1997). Nevertheless, the integration of non-market strategies with organizational performance can be fraught with challenges, often giving rise to divergent viewpoints regarding the prioritization of market-oriented strategies vis-à-vis non-market ones. Nonetheless, businesses may view CPA as a non-market strategy offering long-term benefits for market enhancement, while innovation and product development initiatives present opportunities for rapid improvements in business performance. Consequently, firms may perceive CPA and innovation as alternative strategic avenues, each offering distinct pathways to enhancing organizational competitiveness and ensuring market viability (Ozer, Markóczy, 2010). Based on this, the following hypothesis is proposed:

Hypothesis H3: CPA has a negative relationship with corporate investment when the firm has a high investment level.

Methodology

Conditional Mean Methods - System Generalized Method of Moments

The study utilized several quantitative methods to test the hypothesis. In analyzing panel data, the System Generalized Method of Moments (System GMM) was employed as recommended by (Wooldridge, 2010; Roodman, 2006). This approach is useful for addressing issues related to bias in the dynamic panel and potential endogeneity that may arise from the correlation between the error term and independent variables. Recent literature confirms the applicability and effectiveness of System GMM in panel data analysis (Blundell, Bond, 2000), ensuring the robustness of the methodology used in this study.

The estimation comprised two parts. Initially, the dynamic model was formulated with the expressions specified below.

$$CorInv_{it} = \alpha + \beta_1 CorInv_{it-1} + \beta_2 CPA_{it} + \beta_3 Total\_Asset_{it} + \beta_4 Leverage_{it} + \beta_5 Free\ Cash\ Flow_{it} + \beta_6 Advertisement\_Intensity_{it} + \beta_7 Profitability_{it} + \mu_t + \varepsilon_{it} \quad EQ(1)$$

$$E(\mu_t) = 0,\ E(\varepsilon_{it}) = 0,\ E(\mu_t\, \varepsilon_{it}) = 0\ ;\ i = 1, \ldots..,N\ ;\ t = 2011. \ldots,T \quad EQ(2)$$

The study employs a panel data model where t and i represent time and firm, respectively. The dependent variable in the model is corporate investment (*CorInv*), while capital expenditure (*Capex*), R&D intensity, and asset growth (*Growth*) are used as proxy variables. The spending on corporate lobbying and PAC is denoted as CPA, and the time dummy parameters are represented by μt. The control variables in the model are *Total_Asset, Leverage, Free Cash Flow, Advertisement_Intensity*, and *Profitability*. The random error term is represented by ε_{it}. The System GMM approach is used to handle potential bias in the dynamic panel and to address endogeneity issues. The objective is to evaluate the impact of CPA on corporate investment while controlling for other relevant factors. EQ (2) establishes the conditions necessary for model estimation, ensuring that the error terms have a zero mean and are uncorrelated with the time dummy parameters. This validation step is crucial for confirming the validity of the System GMM estimator.

The study used a fixed-effect panel data model to control for potential endogeneity caused by unobserved firm-level factors that could be correlated with both the dependent variable (*CorInv*) and the independent variable (CPA). The fixed-effect model includes firm-specific indicators in addition to the predictor variables, and estimates how changes in CPA impact corporate investment. This allows for a comparison of a firm's investment against others in the sample at different time points. The model is expressed as follows:

$$\Delta CorInv_{it} = \alpha + \beta_1 CorInv_{it-1} + \beta_2 \Delta CPA_{it} + \beta_3 \Delta Total\_Asset_{it} + \beta_4 \Delta Leverage_{it} + \beta_5 \Delta Free\ Cash\ Flow_{it} + \beta_6 \Delta Advertisement\_Intensity_{it} + \beta_7 \Delta Profitability_{it} + \Delta\varepsilon_{it} \quad EQ(3)$$

Here, *t* and *i* represent time and the firm, respectively. In this model, the variable *ΔCorInv* represents the difference between corporate investment for firm *i* at time *t* and the average value of corporate investment across all firms at that time. The fixed effects for each firm are represented by *αi*, which have a normal distribution with a mean of zero. Time dummy parameters are represented by μt, and changes to the control parameters are represented by *ΔTotal Asset, ΔLeverage, ΔFree Cash Flow, ΔAdvertisement Intensity*, and *ΔProfitability*. By taking account of the differences of the variables, the model assesses changes in corporate investment relative to changes in *CPA, Total Asset, Leverage, Free Cash Flow, Advertisement Intensity,* and *Profitability* over time.

The fixed-effect model used in the study eliminated firm-related heterogeneity, but did not account for the data's dynamic structure. This could lead to the erroneous assumption that firm assets are not temporally associated. To address this, a dynamic panel data technique (Blundell, Bond, 1998) was used. The model includes an autoregressive dynamic component where the dependent variable (*CorInv*) at time *t* and firm *i* is influenced by the lagged dependent variable (*CorInvt-1*), which captures the stability of firm size over time. The model expression is given below:

$$CorInv_{it} = \alpha + \beta_1 CorInv_{it-1} + \beta_2 CPA_{it} + \beta_3 Total\_Asset_{it} + \beta_4 Leverage_{it} + \beta_5 Free\ Cash\ Flow_{it} + \beta_6 Advertisement\_Intensity_{it} + \beta_7 Profitability_{it} + \varepsilon_{it} \quad EQ(4)$$

The adjustment parameter β_1 represents the steadiness in firm value, and αi denotes the fixed effects pertaining to the firm. The STATA 15 xtabond2 code (Roodman, 2006) was applied for this purpose, providing estimates of within-sample elements to ascertain the influence of changes in CPA on corresponding changes in corporate investment.

Panel Quantile Regression

The quantile regression (QR) technique (Koenker, Bassett, 1978) allows for the estimation of several models at conditional quantiles which represent equal-sized splits of the frequency distribution based on the dependent variable. This model is better suited for situations with outliers and non-normal errors, and provides a better characterization of the data, as it estimates the influence of the predictor variables over the complete distribution of the predicted variable as opposed to just the conditional mean. The QR method does not require strict assumptions about outliers, normality, or homoscedasticity. This approach is particularly advantageous for handling outliers and non-normal errors, offering robust estimations throughout the entire range of the dependent variable. Further research (Firpo et al., 2009; Chernozhukov, Hansen, 2005; Roodman, 2006; Wooldridge, 2010) has advanced the methodology, enhancing its applicability and performance in contemporary research settings.

The multiple linear regression framework expresses a dependent variable (*CorInv*) as a function of independent variables (CPA). The System GMM approach estimates the point effects of the independent variables by determining the average correlation shared by the dependent variable and its predictor variables. In this study, *CorInv* is the dependent variable, CPA is the independent variable, and the conditional mean is expressed as $E\ (CorInv|CPA) = CPA'$.

Consider that the observation samples are represented by $(CorInv_{it}, CPA_{it})$; i = 1, 2,…, N and t = 2016,…, T, where *t* and *i* denote the t^{th} and i^{th} time period and firm, respectively. $CorInv_{it}$ is the target corporate investment, while CPA_{it} denotes the (K×1) vector comprising exogenous parameters, in which political investment is also captured. The linear correlation between CPA_{it} and $CorInv_{it}$ is specified below:

$$CorInv_{it} = CPA'_{it}\,\beta + \varepsilon_{it} \quad EQ(5)$$

Quantile regression is a statistical technique that estimates the relationship between variables at different points in the distribution of the dependent variable. Unlike conditional mean-based techniques, which provide a single estimate for the entire distribution of the dependent variable, quantile regression provides estimates for various quantiles, allowing us to analyze the relationship between the variables throughout the entire range of the dependent variable. Additionally,

quantile regression is robust to outliers and does not require assumptions regarding the distribution of errors.

The QR model's expression is specified based on the θth quantile corresponding to the dependent variable's (Yit) conditional distribution, which is linear for X_{it}. This approach is particularly advantageous for handling outliers and non-normal errors, offering robust estimations throughout the entire range of the dependent variable.

$$Y_{it} = X'_{it}\beta_{\theta} + \varepsilon_{\theta it}$$
$$Q_{\theta}(Y_{it} \mid X_{it} = inf\{Y:F_{it}(Y_{it} \mid X_{it})\theta\} = X'_{it}\beta_{\theta}$$
$$Q_{\theta}(Y_{it} \mid \varepsilon_{\theta it}) = 0, \qquad EQ(6)$$

where $Q_{\theta}(Y_{it}|X_{it})$ denotes the θ^{th} conditional quantile corresponding to Y_{it} on the (K×1) vector comprising the independent variables X_{it}. β_{θ} represents the unknown parameter vector that needs to be determined for various values of θ from [0, 1] and $\varepsilon_{\theta it}$ denotes the error term. $F_{it}(.|X_{it})$ corresponds to the target variable distribution conditional on X_{it}. For any value of θ in the [0, 1] range, the complete distribution of Y conditional on X can be ascertained using the QR technique. The minimisation problem below corresponds to the estimation for β_{θ}.

$$\min \sum_{it:\varepsilon_{\theta it}>0} \theta X |\varepsilon_{\theta it}| + \sum_{it:\varepsilon_{\theta it}<0} (1-\theta) X |\varepsilon_{\theta it} =$$
$$= \sum_{it\ Y_{it}-X'_{it}\beta>0} \theta X |Y_{it} - X'_{it}\beta| + \sum_{it\ Y_{it}-X'_{it}\beta<0} (1-\theta) X |Y_{it} - X'_{it}\beta \qquad (7)$$

Equation (7) describes the expression for the QR model, which can be used to estimate the θth QR estimator ((β_θ)^) by minimizing the absolute weighted sum of the errors between the observed and fitted values, represented by Y_{it} and X_it^'β_θ, respectively. Here, (1–θ) and θ denote the weights assigned to the observations with negative and positive residuals, respectively. The negative and positive residuals are represented by the first and second terms of Equation (7), respectively. A notable feature of the QR method is that the estimates of β_θ vary with the change in the value of θ, providing a way to determine the distribution of the effect of the exogenous variables on liquidity creation at different quantiles. The output of the QR method is the sample at the quantile. Since Equation (7) cannot be expressed in a simpler form, linear programming techniques are required for minimization (Hao, Naiman, 2007).

Data, Sample Selection, and Variables

Data. The research conducted in this study utilized data from a sample of 368 US firms included on the Fortune WMAC list between the years of 2016 and 2022, which coincided with the 2016 and 2022 US presidential elections, important political events during this time period. The WMAC list was selected to obtain data from a relatively uniform set of US companies, as these corporations actively invest significant capital in corporate political strategies (CRP, 2018). These companies were ideal for our analysis, as they are likely to consider each other political peers, a necessary condition for our empirical analysis. Additionally, the majority of Fortune WMAC companies and almost half of all mid-size US companies have programs to improve CPA, making them easily accessible for relevant data, which can be obtained from the CRP or the Federal Election Commission. The study utilized CPA data from the CRP's database (see above). The initial analysis included the evaluation of 384 top-performing companies on the 2022 WMAC list for the period from 2016 to 2022.

To avoid any issues related to sample selection, our study did not require a balanced panel, and the number of firms in the sample varied from year to year, with our estimation strategy using as many observations as were available. Additionally, to incorporate the dynamic dimension of our database, such as introducing the lagged value of the dependent variable, we observed firms for at least three consecutive years, excluding those that did not provide complete information. Ultimately, our unbalanced panel sample included 2,576 observations, with roughly 368 firms per year, covering the 2016 to 2022 period. Accounting data corresponding to the control variables and corporate investment was obtained from the Thomson Reuters Datastream, and after merging the data from Fortune's WMAC, Datastream, and CRP, the final sample consisted of 2,576 firm-years of data.

Corporate Political Activity. To measure CPA, we used a definition encompassing non-market activities, which involved one or more of the actions outlined by Hadani et al. (2017), such as (1) lobbying efforts, either in-house or through external hires, (2) PAC contributions or the presence of political connections between the organization and policymakers, such as politically connected personnel, directors, or stockholders, (3) any reported lobbying efforts or interactions with regulatory bodies through petitions, testimonies, or other means, and (4) political activity conducted by the trade association or umbrella body of which the organization in question is a part.

Corporate Investment. In our study, we defined corporate investment as any expenditure or asset purchase made with the goal of achieving higher income or value appreciation, which is not only for the present but also for future interests. The motivation behind such investments is the expectation that future returns will be greater than the initial investment. The focus of corporate investment is on acquiring assets that are expected to yield returns of their own. We used three measures to capture corporate investment: (1) Capital Expenditure (Capex), which is calculated as the capital expended, scaled by the sum of assets in the previous year; (2) Asset Growth, which indicates the rate of growth of total assets; and (3) R&D Intensity, which is

Table 1. **Industry Distribution of Firms in the Sample**

Sector	No of Firms
Computer and Communication	35
Consumer Product	33
Contracted Services	35
Media and Entertainment	45
Natural Resources	34
Power	24
Precision	35
Shelter	41
Store and Distribution	53
Transportation	33
Total	368

Source: authors.

often seen as a determinant of corporate investment (Hill, Snell, 1988; Hoskisson et al., 1993) and as an indicator of efforts for innovation and invention. We measured R&D intensity by calculating R&D expenditure as a percentage of the total sales generated by the organization. These data points were obtained from the DataStream database. The following equations were used to calculate corporate investment:

$$Capex = (Capital\ expenditure\ of\ firm) / (Total\ Assets) \quad EQ(8)$$

$$Assets\ growth\ rate = (Total\ Assets_t - Total\ Assets_{t-1}) / Total\ Assets_{t-1} \quad EQ(9)$$

$$R\&D\ Intensity = (Total\ R\&D\ Expendture\ ) / (Total\ Sales) \quad EQ(10)$$

Control Variables. This study included multiple control variables at the industry, firm, and time levels to account for the small effects of CPA on the dependent variables. At the industry level, the 4-digit SIC code was used to control for differences in profitability across different markets within the industry. At the firm level, control variables included firm size, fixed asset size, liquidity, country of origin, and advertisement intensity. Firm size was measured by total assets, fixed assets were derived from the balance sheet, liquidity was measured by the current ratio, and profitability was measured by return on assets. Free cash flow was used to determine the amount of free cash available to the firm. All data points for control variables were obtained from the DataStream database.

Results and Discussion

Descriptive Statistical Analysis

In this section, the statistical summary of data used in the study is provided. The sample comprised 368 companies, generating 2,119 observations for each variable. The distribution of the firms across ten different industries is presented in Table 1, with transportation having the highest representation (26 firms) and power having the lowest. The sample's descriptive statistics and correlation matrix are presented in Tables 2 and 3, respectively. The study indicates that organizations incur debt to finance their operations and purchase assets, while the use of operating cash flow for such purposes remains limited. The variance in firm size was relatively small, considering revenue and asset context. Variable correlations were between 0.2655 and -0.0011, which can be categorized as low. The study uses the Variance Inflation Factor (VIF) to ascertain the presence of multicollinearity, and VIF values ranged between 1.06 and 6.29, which is an acceptable range given the maximum acceptable value of 10. The tolerance was between 0.1588 and 0.9977, while the mean VIF value stood at 2.69 for the studied parameters, confirming no multicollinearity issues.

Table 2. **Descriptive Statistics Summary**

Variable	Measure Used	Observation	Mean	Std Dev	Min	Max
Capex	Ratio of capital expenditure to total asset	2576	0.0947	0.1835	0.3552	1.3243
Asset Growth	Ratio of different change in Assets over a given period	2576	0.1949	0.4889	0.2818	2.1235
ln CPA	Logarithm total CPA of company i in year t	2576	8.3706	1.8334	0.2451	12.4798
Profitability	Return of Asset	2576	8.3895	1.8176	4.2271	12.4521
ln Total Asset	Logarithm of the total assets of company i in year t	2576	8.7292	1.8956	8.2271	13.5217
R&D Intensity	Ratio of R&D expenditures to total assets of company i in year t	2576	0.0486	0.1014	0.0245	1.5148
Leverage	Liabilities divided by total assets to measure i in year t	2576	1.1966	0.6941	0.1133	6.8989
Free Cash Flow	Logarithm of free cash flow of company i in year t	2576	0.0360	0.1929	-5.7142	0.89491
Advertising Intensity	Ratio of advertising expenditures to total assets of company i in year t	2576	0.1486	0.0914	0.2245	0.51428

Notes: All statistics are based on original data values.
Source: authors.

Table 3. **Correlation Matrix**

Variable	Capex	Asset Growth	ln CPA	Profitability	ln Total Asset	R&D Intensity	Free Cash Flow	Advertising Intensity	Leverage
Capex	1								
Asset Growth	0.0775	1							
ln CPA	0.1623	0.0333	1						
Profitability	0.1198	0.0138	0.0463	1					
ln Total Asset	-0.0109	-0.0021	-0.0025	-0.0201	1				
R&D Intensity	0.1510	0.0865	0.0602	0.2874	-0.073	1			
Free Cash Flow	0.0118	-0.0011	0.0011	0.0484	-0.0013	0.0998	1		
Advertising Intensity	0.0892	0.0194	0.0082	0.0375	-0.0038	0.2665	-0.0033	1	
Leverage	0.0754	0.0462	-0.0239	0.0355	-0.0235	0.2189	-0.0375	-0.0169	1

Source: authors.

Conditional Mean Method - System GMM Results

To estimate the CPA-Corporate Investment framework, we employed dynamic panel data and the two-step Generalized Method of Moments (GMM) estimation technique. This approach offers the advantage of eliminating unobservable firm-specific effects that remain constant over time. By taking the first difference for every parameter, such effects are effectively removed. Additionally, utilizing this technique helps manage correlations between the regressors and the error terms efficiently. Moreover, it reduces the likelihood of endogeneity by incorporating lagged values of difference equations and level variations that constitute the first differences.

In this study, we utilized the estimated values of Asset Growth, Capex, and R&D intensity to model corporate investment, while CPA was utilized to assess the impact of dynamic CPA on the correlations and heterogeneity of corporate investment. To ensure the robustness of the model, misspecification testing was conducted through AR(1) and AR(2) second-order serial correlation tests, as well as the Hansen test to examine constraints. The results indicated high p-values, signifying no residual correlation and validating the instrument and estimate consistency of the System GMM. Moreover, the study further validated the applicability of the System GMM model specification using authentication. The lagged dependents were found to have positive coefficients and statistical significance, suggesting that past financial performance significantly influences the present.

The evidence presented in Table 4 supports a positive relationship between CPA and corporate invest-

Table 4. **The effect of CPA on Corporate Investment**

Variable	System GMM		
	Asset Growth	**R&D Intensity**	**Capex**
Asset Growth$_{t-1}$	0.197*** (-0.03)	-	-
R&D Intensity$_{t-1}$		0.122*** (-0.00529)	-
CAPEX$_{t-1}$	-	-	0.0712* (-0.0381)
ln CPA	0.1106*** (-0.0209)	0.00227* (-0.00126)	0.0917*** (-0.0234)
ln Total Assets	-0.00685 (-0.0402)	-0.00279*** (-0.00103)	-0.0630*** (-0.0221)
Leverage	0.285*** (-0.0168)	0.00743 (-0.00895)	-0.000422 (-0.000465)
Advertising Intensity	1.774*** (-0.521)	-6.13E-05 (-6.05E-05)	-0.0439 (-0.1340)
Free Cash Flow	1.799* (-1.014)	-7.44E-05 (-5.20E-05)	0.0204 (-0.0810)
Profitability	1.2300 (-1.909)	0.000689 (-0.0015)	0.00215*** (-0.000762)
Constant	-0.0958 (-0.309)	0.0123* (-0.00638)	-0.129*** (-0.0479)
Observations	2576	2576	2576
Number of groups	368	368	368
Number of Instruments	23	23	23
R-squared	-	-	-
AR(1)	-1.39(0.029)	-1.07(0.028)	-2.35(0.019)
AR(2)	-2.45(0.707)	-1.05(0.293)	1.61(0.107)
Hansen Test	19.75(0.182)	8.72(0.892)	24.32(0.090)
Difference in Hansen Test	3.82(0.575)	3.492(0.900)	15.01(0.710)

Note: Statistical significance is based on firm-level clustered standard errors. ***, ** and * denote statistical significance at 1%, 5% and 10% respectively. The standard errors are reported in parentheses.

Source: authors.

Table 5. **Results of the Quantile Dynamic Panel Model with Capex as the Corporate Investment Measure (*Capex*)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Variables	τ = 0.10	τ = 0.20	τ = 0.30	τ = 0.40	τ = 0.50	τ = 0.60	τ = 0.70	τ = 0.80	τ = 0.90
$Capex_{t-1}$	0.381*** (0.00428)	0.388*** (0.00463)	0.465*** (0.0131)	0.427*** (0.000845)	0.403*** (0.00566)	0.373*** (0.00849)	0.379*** (0.00275)	0.345*** (0.00333)	0.321*** (0.0157)
ln CPA	0.00293*** (9.77e-05)	0.000608*** (0.000120)	0.000641*** (0.000124)	-0.00194*** (1.69e-05)	-0.00191*** (0.000118)	-0.00448*** (0.000132)	-0.00359*** (6.74e-05)	-0.00493*** (8.34e-05)	-0.00552*** (0.000299)
ln total Assets	6.14e-09 (5.75e-09)	2.35e-08*** (1.91e-09)	3.55e-08*** (2.48e-09)	5.16e-08*** (3.04e-10)	3.52e-08*** (1.90e-09)	6.86e-08*** (2.39e-09)	4.24e-08*** (9.87e-10)	5.21e-08*** (2.19e-09)	2.07e-08*** (3.27e-09)
Leverage	-2.05e-05 (5.89e-05)	8.17e-05 (9.17e-05)	-0.000374*** (7.12e-05)	-0.000220*** (1.28e-05)	-0.000222** (9.72e-05)	-3.25e-05 (9.12e-05)	-0.000163*** (1.75e-05)	-0.000221*** (2.19e-05)	-0.000212*** (6.22e-05)
Advertising Intensity	-0.109*** (0.00290)	-0.0595*** (0.00551)	-0.0317*** (0.00304)	-0.0267*** (0.000450)	-0.0165*** (0.00183)	0.00268 (0.00238)	0.0216*** (0.00155)	0.0488*** (0.000782)	0.0342*** (0.00670)
Free Cash Flow	0.0491*** (0.00216)	0.0307*** (0.00255)	0.0229*** (0.00608)	0.0533*** (0.000271)	0.0595*** (0.00343)	0.0564*** (0.00282)	0.0560*** (0.000830)	0.0528*** (0.00189)	0.0261*** (0.00317)
Profitability	0.288*** (0.00368)	0.317*** (0.00193)	0.292*** (0.00734)	0.313*** (0.000339)	0.322*** (0.00384)	0.354*** (0.00418)	0.359*** (0.00195)	0.385*** (0.00167)	0.400*** (0.00833)
Observations	2576	2576	2576	2576	2576	2576	2576	2576	2576
Number of groups	368	368	368	368	368	368	368	368	368

Note: *, **, *** means significant at 10%, 5% and 1% respectively. CPA = corporate political activity.
Source: authors..

ment. Models 1, 2, and 3 demonstrate that all three variables (Asset Growth, R&D Intensity, and Capex) have significantly positive coefficients with corporate investment (e.g., β = 0.11065, p-value < 0.001 for Asset Growth; β = 0.00227, p-value < 0.01 for R&D Intensity; and β = 0.0917, p-value < 0.005 for Capex). These findings indicate that as CPA increases, its impact on corporate investment also rises, supporting Hypothesis 1. The positive correlation between CPA and corporate investment aligns with previous studies (Czarnitzki, Toole, 2007; Hyytinen, Toivanen, 2005), suggesting that government initiatives to alleviate market uncertainty for new products through project subsidies and capital funding can facilitate businesses in securing investments and addressing financial challenges.

It appears from the study's findings that well-established, large firms with limited growth avenues and low risk tend to strategically engage in political activities and exhibit higher levels of R&D spending, asset growth, and capital expenditure. These firms also tend to outperform politically disconnected firms in terms of corporate investment. These findings are consistent with prior research on the relationship between corporate political activity and business performance. Additionally, the study suggests that higher salaries paid to political delegates may be associated with better business performance.

Table 6. **Results of the Quantile Dynamic Panel Model with Asset Growth as the Corporate Investment Measure (*Asset Growth*)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Variables	τ = 0.10	τ = 0.20	τ = 0.30	τ = 0.40	τ = 0.50	τ = 0.60	τ = 0.70	τ = 0.80	τ = 0.90
$Asset\ Growth_{t-1}$	0.0585*** (0.000377)	0.0497*** (0.000227)	0.0439*** (0.000892)	0.0369*** (0.000233)	0.0348*** (0.00236)	0.0649*** (0.000104)	0.0383*** (0.000531)	0.0330*** (0.000653)	0.0677*** (0.00310)
ln CPA	0.00391*** (0.000190)	0.00198*** (0.000234)	0.000566** (0.000236)	0.00120*** (0.000148)	-0.00183*** (0.000432)	-0.00282*** (0.000204)	-0.00493*** (9.31e-05)	-0.00626*** (0.000146)	-0.0151*** (0.00101)
ln total Assets	-6.04e-09 (4.54e-09)	-1.47e-07*** (1.09e-08)	-2.26e-07*** (5.82e-09)	-3.94e-07*** (8.01e-09)	-3.30e-07*** (7.71e-09)	-2.52e-07*** (3.64e-09)	-2.81e-07*** (3.83e-09)	-3.77e-07*** (2.60e-09)	-2.78e-07*** (7.50e-09)
Leverage	0.0878*** (0.000190)	0.136*** (0.000106)	0.158*** (0.000370)	0.196*** (8.55e-05)	0.238*** (0.000618)	0.237*** (6.36e-05)	0.268*** (0.000226)	0.317*** (0.000242)	0.318*** (0.000524)
Advertising Intensity	-0.0234** (0.0110)	-0.0155*** (0.00511)	-0.0220*** (0.00436)	-0.0236*** (0.00160)	0.00984 (0.0142)	-0.0267*** (0.00263)	-0.0387*** (0.00208)	0.0529*** (0.00451)	0.163*** (0.0185)
Free Cash Flow	0.0207*** (0.00379)	0.0902*** (0.00988)	0.0468*** (0.00792)	0.0699*** (0.00382)	0.0588* (0.0340)	0.128*** (0.00327)	0.211*** (0.00259)	0.318*** (0.00944)	0.515*** (0.0416)
Profitability	1.017*** (0.00367)	1.071*** (0.00295)	1.118*** (0.0113)	1.200*** (0.00297)	1.244*** (0.00663)	1.169*** (0.00264)	1.155*** (0.00256)	1.068*** (0.00420)	1.017*** (0.0136)
Observations	2576	2576	2576	2576	2576	2576	2576	2576	2576
Number of groups	368	368	368	368	368	368	368	368	368

Note: *, **, *** means significant at 10%, 5% and 1% respectively. CPA = corporate political activity.
Source: authors..

Table 7. **Results of the Quantile Dynamic Panel Model with R&D Intensity as the Corporate Investment Measure (*R&D intensity*)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Variables	τ = 0.10	τ = 0.20	τ = 0.30	τ = 0.40	τ = 0.50	τ = 0.60	τ = 0.70	τ = 0.80	τ = 0.90
R&D Intensity $_{t-1}$	0.610*** (0.0212)	0.651*** (0.000440)	0.776*** (0.000504)	0.823*** (0.00168)	0.816*** (0.000261)	0.837*** (0.00487)	0.846*** (0.00248)	0.839*** (0.0136)	0.816*** (0.00210)
ln CPA	38.71** (17.70)	36.05*** (0.347)	22.98*** (0.279)	24.96*** (0.983)	-41.06*** (0.295)	-32.06*** (1.196)	-27.39*** (2.277)	-27.86*** (7.312)	-30.91*** (1.140)
ln total Assets	0.0148*** (0.00167)	0.0205*** (2.74e-05)	0.0190*** (2.79e-05)	0.0187*** (0.000128)	0.0202*** (1.10e-05)	0.0228*** (0.000437)	0.0260*** (0.000202)	0.0313*** (0.000781)	0.0391*** (0.000162)
Leverage	-4.730 (5.234)	-0.386*** (0.00833)	-1.247*** (0.101)	0.464 (0.466)	0.275*** (0.0181)	-1.459 (1.698)	-0.487 (0.462)	0.367 (2.024)	-0.336 (0.751)
Advertising Intensity	-160.9 (328.2)	13.72*** (2.994)	43.64*** (2.244)	-37.12*** (6.591)	-41.68*** (0.687)	-53.09 (61.95)	-96.76** (43.96)	-70.34** (34.28)	-28.11 (43.53)
Free Cash Flow	-568.3 (578.8)	84.83*** (3.547)	125.3*** (3.540)	138.7*** (22.10)	121.1*** (2.066)	-73.84 (138.9)	123.6* (71.38)	-37.44 (124.7)	-16.75 (38.05)
Profitability	-153.4 (348.2)	220.5*** (1.320)	167.9*** (4.124)	176.0*** (5.060)	156.3*** (1.148)	340.3*** (131.0)	238.2*** (59.30)	238.2*** (66.42)	96.74*** (22.97)
Observations	2576	2576	2576	2576	2576	2576	2576	2576	2576
Number of groups	368	368	368	368	368	368	368	368	368

Note: *, **, *** means significant at 10%, 5% and 1% respectively. CPA = corporate political activity.
Source: authors..

Panel Quantile Regression

The results of the study show that the effects of CPA on corporate investment vary across different quantiles of the independent and dependent variables. Specifically, lower quantiles of CPA (from 0.10 to 0.40) have a positive influence on corporate investment, while higher quantiles (from 0.50 to 0.90) lead to adverse effects. This suggests that positive changes in CPA negatively affect corporate investment. The details of the quantile estimate results can be found in Tables 5, 6, and 7.

Lower Quantiles (0.10 - 0.40). According to the results presented in Tables 5, 6, and 7, the relationship between CPA and corporate investment varies depending on the quantiles of the variables. In particular, low-investment firms in the 10th and 40th quantiles benefit from the positive influence of CPA on investment, while high-investment firms in the 50th to 90th quantiles experience negative effects of CPA on investment. This finding suggests that firms with low investment levels, especially those in the lower quantiles, should emphasize developing their connections with the government and engaging in CPA. Doing so would enable them to receive support and resources from the government, reduce market-based risks, access preferential debt-based finance and tax benefits, and enhance their political capital. These benefits would make them more resilient to market pressures and better positioned to compete. The results are consistent with previous studies that highlight the value of CPA in improving business performance (Houston et al., 2014; Tee, 2018) and reducing uncertainty (Mitnick, 1993). Moreover, engaging in CPA may allow firms to influence policy and regulations in their favor and gain access to large government projects (Gomez et al., 2017).

Higher Quantiles (0.50 - 0.90). The results from Tables 5, 6, and 7 suggest that, on average investment levels, corporate political activity (CPA) has a negative impact on corporate investment in higher quantiles (50th and 90th). This indicates that firms in these quantiles should not rely on government resources to enhance their corporate investments. After a certain threshold of investment, organizations should not focus on building excessive dependence on the government through CPA; instead, they should concentrate on increasing sales on their markets. Higher sales are essential to mobilize corporate investments, which is more effective than CPA investment. Sales increase cash flow, which enables market expansion, improved technology, increased capital, and better promotion and development. Therefore, firms with higher corporate investment levels should concentrate on strengthening their market presence, increasing sales, and working toward a sustainable competitive advantage to facilitate better corporate investment. Hence, Hypothesis 3 is supported.

Conclusion

The study collected data on corporate investment and CPA from various databases, including DataStream, CRP, and Fortune WMAC, from 2016 to 2022 to analyze the relationship between CPA and corporate investment. The study used a detailed set of variables to model the socioeconomic and political characteristics of US institutions. The analysis showed that firms engaged in CPA have higher levels of corporate investment compared to those that do not use CPA. This positive effect is statistically significant for firms in the middle quantile who are likely to receive government support through CPA. The study's findings suggest a

correlation between CPA-facilitated corporate investments, commercial benefits, and government support from a socioeconomic policy perspective.

According to this research, the relationship between CPA and corporate investment is affected by the investment level of the firm. The study supports the resource dependence theory and the political patronage theory, which suggests that CPA and corporate investment are complementary. The results also indicate that politically strategic firms have low levels of corporate investment at higher quantiles, whereas firms at lower quantiles have higher levels of corporate investment. This leads to an inverse V-shaped association between CPA and corporate investment. The study found that larger firms are less influenced by CPA, as they have strong economic and technical power, and do not need to rely on government support to increase their investment. While prior research suggests that politically connected firms have higher levels of investment, the evidence is mixed for low or high capital-intensive firms in this study.

In conclusion, this study illustrates the dynamic changes in CPA levels and their impact on corporate investment in the US, where political patronage is a significant factor in the system (Danaei et al., 2013). Based on our analysis of 2,576 records, our findings suggest a strong relationship between CPA and corporate investment, despite the associated risks. This study suggests that the level of corporate investment varies across different CPA scales, with aggressive firms projected to have better investment outcomes compared to their moderate counterparts. Thus, CPA efforts seem to help aggressive organizations engage in better corporate investment. It is important to understand the strong relationship between CPA and corporate investment since numerous studies have used meta-analysis to identify factors influencing corporate investment. Comparing the organizational benefits of CPA with other factors, such as government support and trade protection, we find that CPA provides a meaningful boost to performance, with benefits equaling or exceeding other factors. Based on cost comparisons, CPA appears to be the most advantageous strategy for maintaining a sustainable advantage and staying ahead of competitors. In conclusion, it is crucial for firms to leverage CPA to their advantage and invest in it as much as possible to ensure their long-term competitiveness.

This study found that larger firms with significant market share tend to be more politically active, while small and medium-sized enterprises (SMEs) can benefit more from CPA since they have lower levels of corporate investment. Business managers believe they can offset the individual costs of political efforts by earning a share of public policy benefits. Political strategy can also help firms avoid downsizing. When facing threats from competitors, political engagement may be one of the few strategic options available, particularly for industries with high exit costs. Firms facing national and international competitive pressure should employ an organization-level strategy that complements their public policy strategy to better understand the factors that motivate businesses to seek government protection.

This study examined the relationship between CPA and corporate investment, but has some limitations. Firstly, the sample only included listed US companies due to data availability, which may not represent unlisted companies. Secondly, the sample size of corporations engaged in political donations was limited, although the seven-year period compensates for this. Thirdly, the chosen sample may not be comprehensive, which could affect the study's findings. Future research should explore different types of political donations, test the legitimacy theory with other legitimacy strategies, and investigate ethics' role in the contexts of CPA and corporate investment.

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